

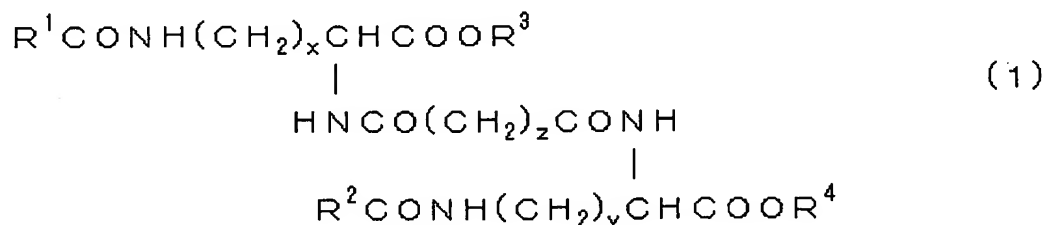
# REMARKS

Claims 1-20 are pending in the present application.

At the outset, Applicants wish to thank Examiner Kosar and Examiner Tate for the helpful and courteous discussions with their undersigned Representative on January 12, 2005. During this discussion, various amendments and arguments to address the outstanding rejections were discussed. The content of this discussion is believed to be reflected in the present response.

The rejection of Claims 1-8 under 35 U.S.C. §103(a) over Gachard et al and JP 2000-256303, further in view of Makrevic et al, Ajinomoto (Amihope Functional Powder), Ajinomoto (web-site), Suzuki et al, US 4,965,071, and Cosmetic and Toiletry Formulations is respectfully traversed.

The present invention provides, *inter alia*, a basic amino acid derivative represented by formula (1) or a salt thereof:



wherein  $R^1$  and  $R^2$  each independently is a straight-chain or branched-chain alkyl or alkenyl group having 5 to 21 carbon atoms,

$R^3$  and  $R^4$  each independently is an alkyl or alkenyl group having 1 to 22 carbon atom(s), hydrogen atom, alkaline metal or alkaline earth metal, wherein the alkyl or alkenyl group may be either in straight-chain or branched-chain or may have a cyclic structure,

z is an integer of 0 or more and

x and y each is an integer of 2 to 4.

Applicants submit that the art of record, in any combination, fails to disclose and/or suggest the claimed invention and the advantages flowing therefrom. Specifically, Applicants direct the Examiners' attention to the fact that although Gachard et al disclose the synthesis of lysine-based polyamides, at no point does this reference provide any disclosure or suggestion of a compound of formula (1).

The only compounds disclosed by Gachard et al that are remotely close to that of the claimed genus of compounds are  $N^{\alpha}, N^{\alpha'}$ -adipoyl bis( $N^{\epsilon}$ -benzyloxycarbonyl-L-lysine-benzyl ester) and  $N^{\alpha}, N^{\alpha'}$ -glutaroyl bis( $N^{\epsilon}$ -benzyloxycarbonyl-L-lysine-benzyl ester) appearing on page 1377. However, Applicants note that these compounds are distinct from those presently claimed at each of  $R^1$ - $R^4$ . We also noted that Gachard et al does not disclose or suggest modifying their genus of compounds or synthesizing any similar compound in which  $R^1$ - $R^4$  would be within the scope of the present invention. Further, the secondary references do not compensate for this basic deficiency in the disclosure of Gachard et al.

MPEP §2142 states: "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation... to modify the reference... Second, there must be a reasonable expectation of success. Finally, the prior art reference... must teach or suggest all the claim limitations." As stated above, Gachard et al and the secondary references fail to support even a *prima facie* case of obviousness in that these reference fail on the first and third criteria to required by MPEP §2142.

In the Office Action, the Examiner cites JP 2000-256303 (JP '303) as providing the motivation to satisfy the aforementioned deficiency in the disclosure of Gachard et al by disclosing a genus of compounds based on  $N^{\epsilon}$ -lauroyl-lysine. However, Applicants direct the

Examiners' attention to page 4, lines 10-18 of the specification where the known problems with the compounds disclosed by JP '303 are discussed.

Applicants note that based on the disclosures of Gachard et al and the secondary references the skilled artisan would not have any reasonable expectation of the advantageous results flowing from the claimed invention. To further underscore the problems in the art as represented by JP '303 and the unexpected advantages flowing from the claimed genus of compounds, Applicants refer the Examiner to the Examples of the present specification. In particular, Applicants direct the Examiners' attention to Table 1 on page 24 (reproduced below for the Examiners convenience) in which the compounds of JP '303 (comparative Examples 3 and 4) were compared to the compounds of the present invention (manufacturing Examples 1-3).

Table 1

Liquid Organic Medium	Example 1	Example 2	Example 1	Comparative Example 3	Comparative Example 4
	Compound of Manufacturing Example 1	Compound of Manufacturing Example 2	Compound of Manufacturing Example 3	N <sup>ε</sup> -Octadecyl carbamoyl-N <sup>ω</sup> -lauroyl-lysine methyl ester	N <sup>ε</sup> -Octadecyl carbamoyl-N <sup>ω</sup> -lauroyl-lysine ethyl ester
Methanol	Δ	oo	oo	oo	×
Benzene	O	oo	oo	Δ	o
DMF	O	o	o	o	Δ
DMSO	Oo	oo	oo	oo	oo
CCl <sub>4</sub>	Oo	oo	Δ	×	×

Evaluation:

When the amount of a gelling agent necessary for gelling 1 ml of a liquid organic medium was 25 mg or less, it was evaluated as oo; when the amount was 26 to 35 mg, it was evaluated as o; when the amount was 36 to 45 mg, it was evaluated as Δ; and when the amount was 46 mg or more, it was evaluated as × (see page 23, lines 2-8)

These data clearly evidence that compounds of the present invention enjoy universal applicability (i.e., are useful in a wider range of liquid organic media) at a lower

concentration as compared to the compounds of JP '303. In view of the foregoing, Applicants submit that the skilled artisan would not have any expectation of the superior gelling abilities of the claimed compounds as compared to those explicitly provided by the cited disclosures, absent the present specification.

Accordingly, Applicants request withdrawal of this ground of rejection.

The rejections of: (a) Claims 1-4 and 6-8 under 35 U.S.C. §102(a) over Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843, and (b) Claims 1-8 under 35 U.S.C. §103(a) over Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843, in view of Gachard et al, are respectfully traversed on the ground that Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843, is not prior art against the present application.

Specifically, Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843, was published on September 1, 2003. In contrast, the present application claims priority to PCT/JP03/05453, filed on April 28, 2003, and to JP2004-027873, filed on February 4, 2004. To perfect their claim of priority to PCT/JP03/05453, Applicants **submit herewith** a certified English translation of PCT/JP03/05453. Applicants request that the Examiner acknowledge entitlement of the present application to the benefit of an earlier filing date provided by the claim to priority to PCT/JP03/05453, which is more than four months prior to publication of Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843. Since Suzuki et al, *Tetrahedron Letters* (2003) 44, 6841-6843, is not prior art against the present claims and these grounds of rejection rely upon this reference in combination with Gachard et al, these rejections should be withdrawn.

Withdrawal of these grounds of rejection is requested.

The rejection of Claims 1-4 and 6-8 under 35 U.S.C. §102(a) over Suzuki et al, *Org. Biomol. Chem.* (2003) 1, 4124-4131, is respectfully traversed on the ground that Suzuki et al, *Org. Biomol. Chem.* (2003) 1, 4124-4131, is not prior art against the present application.

Suzuki et al, *Org. Biomol. Chem.* (2003) 1, 4124-4131, was published on October 9, 2003. As stated above, the present application claims priority to PCT/JP03/05453, filed on April 28, 2003, and to JP2004-027873, filed on February 4, 2004. To perfect their claim of priority to PCT/JP03/05453, Applicants **submit herewith** a certified English translation of PCT/JP03/05453. Applicants request that the Examiner acknowledge entitlement of the present application to the benefit of an earlier filing date provided by the claim to priority to PCT/JP03/05453, which is more than five months prior to publication of Suzuki et al, *Org. Biomol. Chem.* (2003) 1, 4124-4131. Since Suzuki et al, *Org. Biomol. Chem.* (2003) 1, 4124-4131, is not prior art against the present claims this rejection should be withdrawn.

Acknowledgment that this ground of rejection has been withdrawn is requested.

The rejection of Claims 6-8 under 35 U.S.C. §112, second paragraph, is obviated by amendment.

Applicants note that Claims 6-8 have been amended to remove the term "members." Accordingly, the claims now clearly indicate that the products claimed in Claims 6-8 contain at least one basic amino acid derivative that are defined in Claim 1.

Applicants request withdrawal of this ground of rejection.

The objection to Claims 1, 2-5, and 8 is obviated by amendment.

Applicants note that the claims have been amended herein to be free of the Examiner's criticism. It is believed that this objection is no longer applicable.

In view of the present amendments, Applicants request withdrawal of this objection.

The objection to the specification for not capitalizing the tradename Amihope LL wherever it appears in the specification is obviated by the amendment herein above. Applicants note that Amihope LL is now capitalized and accompanied by its generic terminology at each occurrence in the specification. Withdrawal of this objection is requested.

The objection to the abstract of the disclosure is believed to be obviated by the substitute Abstract **submitted herewith**. Withdrawal of this ground of objection is requested.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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